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REMARKS

Applicants hereby acknowledge the reopening of prosecution and the Examiner's withdrawal of the previous double patenting rejection over U.S. patent application serial no. 10/359,796 in view of Applicants' appeal brief filed October 19, 2006. The withdrawal of the rejection under 35 U.S.C. 103(a) over U.S. patent 3,966,012 to Crewe in view of U.S. patent 6,280,546 and further in view of U.S. patent 3,511,331 is also acknowledged.

Applicants hereby note that the form PTO-892 (Notice of References Cited) attached to the Office Action lists U.S. patent 6,860,218 to Eagles, et al., but the Office Action does not include a rejection over Eagles, et al. Accordingly, this response is prepared under the presumption that no rejection has been made in view of Eagles, et al.

Claims 1-28 stand rejected under 35 U.S.C. 103(a) over U.S. patent 3,966,012 to Crewe in view of U.S. patent application serial no. 2003/0019418 to Romanski, et al. It is respectfully submitted that the rejection is incorrect and should be withdrawn.

Particularly, the rejection inaccurately applies the Romanski, et al. reference to overcome the deficiencies of the Crewe reference in view of the pending claims.

The present invention claims an abrasion-resistant skirt material for use with air cushion vehicles having at least one air chamber, and also teaches a lightweight, abrasion-resistant skirt material. In each embodiment, the skirt material comprises (a) a woven fabric base, comprising yarns of an ultra-high molecular weight polyethylene; (b) a bonding layer, comprising a thermoplastic material bonded to the fabric base; and (c) an outer layer, comprising a rubber compound bonded to the bonding layer. This structure is not taught or suggested by a combination of the cited references.

Crewe teaches an air cushion vehicle having a flexible skirt assembly, which skirt assembly includes a bag member 12 and a reticulated member 18. Bag member 12 is formed from sheet material 14, and reticulated member 18 is formed from fibrous strands or metallic wires to form a net. In contrast to the Examiner's assertion, Crewe does not teach that the sheet material 14 is coated with a natural or synthetic rubber. Rather, at col. 1, lines 55-57, Crewe makes a reference to the prior art stating that it is known to manufacture a flexible material for air cushion vehicle skirts comprising a woven fabric coated with a rubber. Aside from this reference to the prior art at col. 1, lines 55-57, Crewe does not again mention the use of rubber in association with their invention, an outer layer, comprising a rubber compound bonded to the bonding layer.

Additionally, in further contrast with the presently claimed invention, bag member 12 and reticulated member 18 are not bonded to each other. Rather, members 12 and 18 are attached to the rigid structure of the air cushion vehicle. Indeed, while reticulated member 18 does surround the outer surface of the bag member 12, member 12 and member 18 are not even in direct contact with each other, being separated by a buffer material 19 to prevent chafing of the bag member due to movement between members 12 and 18 (see col. 2, lines 27-32). Crewe describes that buffer 19 may be of a fibrous or foam construction, and buffer 19 is also not bonded to either of the bag member 12 or reticulated member 18. While, Crewe does not specifically state that buffer 19 is mandatory, they do not describe any embodiment that does not include the buffer 19. More importantly, because bag member 12 and reticulated member 18 are not bonded together, the absence of buffer 19 would result in undesirable chafing causing deterioration of the bag member. Crewe also fails to teach or suggest a skirt material comprising an outer rubber layer. Accordingly, Crewe certainly teaches away from any skirt assembly having a bag member 12 and reticulated member 18 in contact with each other. It is therefore respectfully submitted that one of ordinary skill in the art would not even look to Crewe to arrive at the presently claimed invention, let alone have a

reasonable expectation of success in forming the present invention upon reading the disclosure of Crewe.

The Examiner has previously acknowledged that Crewe fails to teach multiple coating layers (see office action mailed 5/12/2006, page 4, lines 9-10). To overcome this void, the Examiner has applied U.S. patent application serial no. 2003/0019418 to Romanski, et al. Romanski, et al. teaches a coating for a flexible fluid containment vessel that is used to transport fresh water. The vessel is formed from a woven fabric that is shaped into a tube and has sealable ends. The fabric is formed from high strength fibers, such as KEVLAR® aramid fibers or SPECTRA® polyethylene fibers. The tubular vessel has outside (face) and inside (back) surfaces that may be individually coated with a thermoplastic material. Each coating may be different. The reference teaches that the surface coatings may be applied in the form of a foam to provide buoyancy, or the coating polymers may include buoyancy-enhancing micro-spheres.

Despite the Examiner's assertions, it is respectfully submitted that Romanski, et al. also fails to teach multiple coating layers and fails to overcome the deficiencies of Crewe. Particularly, the rejection incorrectly interprets that the newly applied Romanski, et al. reference teaches a fabric having *both* a thermoplastic coating on the fabric and an additional coating layer *atop* the thermoplastic coating. Romanski, et al. does not teach overlapping coatings on a fabric.

The Examiner directs the Applicants to paragraphs [0021-0023], and particularly to paragraph [0023], and states that this particular disclosure has been equated to a "fabric layer coated on both sides with a thermoplastic coating, and then an additional layer of coating atop the thermoplastic coating layer." Paragraph [0023] does not support this interpretation. Paragraph [0021] discusses the benefits of having a different coating on the inside of a containment vessel than on the outside of a containment vessel, such as

outer UV protection or interior fungicide protection. Paragraph [0023] states the following:

[0023] Such a coating arrangement may be implemented by applying coating to the fiber or yarn that makes up the fabric prior to the weaving thereof. In this regard, the face fibers may be coated with one type of thermoplastic compound with the back fibers coated with a different thermoplastic compound. The weaving process selectively interlaces all fibers with one type coating on one side and with the other coating on the other side. The structure is then heat treated under pressure to enable the thermoplastic coating to liquify and render the fabric impermeable. The different coatings predominantly stay on the sides of the fibers where they originated from. (emphasis added).

This paragraph does not state that an *additional* coating is applied *atop* an already present coating, as the rejection interprets. Rather, it states that one type of coating is on one side of the fabric (e.g. an exterior coating with UV protective properties) and a separate, different type of coating on the other side of the fabric (e.g. an interior coating providing germicide or fungicide protection). Moreover, the reference clearly does not even suggest any benefit to the application of a hypothetical second coating to cover up a first coating, because the benefits of each coating described are only achieved by their interaction with the environment. For example, a hypothetical second coating would render useless a first coating applied for its UV protection properties.

The entirety of the rejection is based on this incorrect interpretation. In an effort to overcome the differences between the Crewe reference and the claimed invention, Romanski et al. has been applied and “[t]he Examiner is equating the thermoplastic layer to be equivalent to Applicant’s bonding layer and any additional coating to be the outer layer.” However, Romanski, et al. fails to disclose the alleged multilayer coating and is not applicable as the rejection argues.

Applicants respectfully assert that the Romanski, et al. reference is inapplicable to the present invention. The reference makes no mention of a potential use of their material for

a hovercraft skirt, and only describes the use as a vessel for storing fluids that are less dense than sea water. Their storage vessels are towed through water and their buoyant coatings prevent the vessels from sinking when being towed or when being emptied. The Examiner justifies the combination of the Crewe and Romanski, et al. references and application herein by analogizing that the fabrics of Romanski, et al. are "exceptionally light in weight and buoyant, as hovercrafts and related crafts should be." However, this analogy is incompatible with the direct teachings of Romanski, et al. The Romanski, et al. invention is provided as an alternative to mechanical buoyancy devices (see para. [0056]), while air cushion vehicles such as HOVERCRAFTS™ are supported by such mechanical buoyancy devices. As described in the present application, air cushion vehicles are supported just above ground or water level by an air cushion that supports a load, i.e., the weight of the vehicle and its cargo. Multiple high-volume, high-pressure fans effectively pressurize the air held beneath the vehicle with enough force to lift the vehicle just above the surface over which it is positioned. A separate motive source, comprising fans or turbines, then propels the vehicle over the surface of the ground or water. Such vehicles typically include a skirt around the vehicle's rigid support frame to enclose and form the air cushion. Romanski, et al. teaches away from this type of mechanical buoyancy system, and there is no teaching or suggestion or other appropriate nexus between Romanski, et al. and Crewe allowing for the proposed combination of references. Accordingly, it is respectfully submitted that one skilled in the art would not look to Romanski, et al. together with Crewe for the purpose of achieving the claimed invention.

For the foregoing reasons, it is submitted that the rejection of claims 1-28 under 35 U.S.C. 103 over Crewe in view of Romanski, et al. should be withdrawn. Such action is requested.

The undersigned respectfully requests re-examination of this application and believes it is now in condition for allowance. Such action is requested. If the Examiner believes there

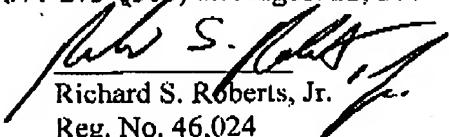
is any matter which prevents allowance of the present application, it is requested that the undersigned be contacted to arrange for an interview which may expedite prosecution.

Respectfully submitted,



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I hereby certify that this paper is being facsimile transmitted to the United States Patent and Trademark Office (FAX No. 571-273-8300) on August 22, 2007.



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